

STRATEGIC FINANCE

MBA

Short-Calculation I

Assume, on January 1st, 2018 you acquired some 10,000 shares of Cherat Packaging Limited when the price was hovering at Rs. 200.00/-. Today, the share price stands at Rs. 168.51/-

Check the market-to-book value of your investment (a) when you bought the shares (Use 2017 figures) (b) as of today. Also discuss and give your thoughts on this.

Solution:

a) When you bought the shares

Shares were bought on January 1st, 2018 and the available financial statements at that time were that of 30 June 2017, hence the figures shall be taken from 2017 financials.

Market to Book ratio = $\frac{\text{Market Value of Equity}}{\text{Book Value of Equity}}$

Book Value of Equity is given the financial statements (2017 Balance sheet) i.e. the value of total equity (Share Capital+Reserves) = Rs. 4,016,877

Market Value of Equity can be calculated as Share Price x # of Shares
Now we already know the share price at the time we bought the shares i.e. Rs. 200/-, however the number of shares are not know.

So we will obtain the number of shares by performing a small calculation. We must know that the PAR VALUE (FACE VALUE) of an Ordinary Share in Pakistan is Rs. 10/- (Unless specified otherwise)

If we know that Par Value of an ordinary share is Rs. 10/- and we also know that the Share Capital of the company is Rs. 296,055 (in 2017), we can simply calculate the number of shares by dividing the share capital with par value

$$\frac{296,055}{10} = 29,605.5 \text{ (\# of shares)}$$

Now that we know the number of shares the market value of equity can be calculated

$$200 \times 29,605.5 = \text{Rs. } 5,921,100/-$$

$$\begin{aligned}\text{Market-to-Book Ratio} &= \frac{5,921,100}{4,016,877} \\ &= \mathbf{1.47}\end{aligned}$$

NOTES:

Make sure to check if the figures quoted in the financials are in total amount, thousands or millions (and accordingly use the correct figures)

In the above calculation I have used all figures as quoted (i.e. not adjusted for thousands, hence the number of shares are also in thousands). If it is required to tell the actual number of shares, they will be 29,605,500 (this is just for reference).

Equity means Total Ordinary Equity and it comprises of Share Capital (also called Paid-up Capital) plus Reserves plus Retained Earnings/ Accumulated Profits

Number of shares & par value is only related to Share Capital (Paid-up Capital) and not EQUITY.

a) As of Today

Now the share price is Rs. 168.51/- whilst the book value will be based on 2018 figures, using the same process as mentioned above, we will calculate the Market to Book ratio as of today.

Book Value of Equity: Rs. 4,516,005

Market Value of Equity: Rs. 168.51 x 33,602.2 = Rs. 5,662,307

Market-to-Book Ratio: **1.25**

Comments:

Based on the above calculations, we can see that value addition exist company's shares, however we can't simply make our perception based only on these two figures. One might consider that the present ratio has seen a reduction from previous year. We have limited information, however considering the financials of the company one can say that the company has struggled to maintain its margin despite pushing sales volumes. Debt levels has increased but investment on the other hand is also

evident. So perhaps in the years to come the company might turn around its position. Another factor to consider is that stock market as a whole is under pressure at present and price reductions are inevitable.

Short-Calculation II:

Consider for instance that the WACC of CPL is 22%. The company does increased its profit marginally, has real value been created, along with the value creation last year assuming the WACC is same. Also check the return measure using ROCE.

The question specially doesn't say to calculate EVA, but asks to evaluate if real value is created. We know we can check value creation/addition via MVA or EVA, but since we are given WACC this indicates that we have to use EVA as a tool for measurement.

$$\text{EVA} = \text{NOPAT} - (\text{Total Capitalization} \times \text{WACC})$$

$$\begin{aligned}\text{NOPAT} &= \text{EBIT} (1 - \text{tax rate}) \\ &= 893,145 (1 - 30\%) \\ &= 625,202\end{aligned}$$

$$\text{Total Capitalization} = \text{Value of Equity} + \text{Value of Long-term Debt}$$

$$\begin{aligned}\text{Value of Equity} &= 4,516,005 \\ \text{Value of Debt} &= 2,735,000 + 85,000 \\ \text{Total Capital} &= 7,336,005\end{aligned}$$

Note: Value of debt is the VALUE OF LONG-TERM INTEREST BEARING DEBT. Whenever we take DEBT under CAPITAL it has to be Long-term & Interest Bearing. The figure of Rs. 85,000 above included in Value of Debt is the Current Maturity of the Long-term Debt. We have already discuss this concept. The current maturity of long-term is actually A PART of Long-term debt which is due to be paid within the next 12 months and that is why it is shown under Current Liability, but since it is A PART OF LONG-TERM DEBT it has to be included in the value of debt.

$$\text{EVA} = 625,202 - (7,336,005 \times 22\%)$$

$$\text{EVA} = \mathbf{-988,719}$$

Comments

EVA of the company stands negative but we can't say that it is bad just by looking this figure for the present year. In 2018, as already discussed above, the company has slipped its margin which has apparently hit its operating profits. Moreover, a good amount of debt has been added to the capital structure, which must have affected its cost of funding as well. The added debt is being used to finance some expansion and it is obvious that the revenue, profits and cashflows stream from this investment will come in future periods. So we need to understand what expansion is underway to conclude properly.

Return on Capital Employed

$$\text{ROCE} = \frac{\text{NOPAT}}{\text{Capital Employed}}$$

Capital Employed is equal to Total Capitalization i.e. Value of Equity + Value of Debt

$$\begin{aligned}\text{So ROCE will be: } & \frac{625,202}{7,336,005} \times 100 \\ & 8.52\%\end{aligned}$$

The company generated 8.52% return over the total invested capital. We already know that the cost of these capital is 22%, so technically the ROCE should be atleast 22% to get a break-even or above 22% to achieve value addition.